

CORPORATE TAX BURDEN COMPARISON: BIOTECHNOLOGY CORPORATION

A. INTRODUCTION

Businesses consider a wide variety of factors in making location decisions. Because tax systems vary among states, the expected amount of tax paid is one of the factors in business location decisions.

The purpose of this report is to compare the direct business tax liabilities incurred by a hypothetical biotechnology corporation arising from the major taxes in each of five states. The five states included in this comparison are: California, Illinois, Massachusetts, Minnesota and, Wisconsin. The states were chosen because they have considerable biotechnology activity.

Taxes included in this comparison are the corporate income, franchise, property and sales taxes. With limited exceptions, the comparison is based on tax law effective in the states in 2004. Wisconsin taxes are shown for 2004 and 2008 since the state has enacted two provisions that will significantly reduce the tax burdens in this state. Property tax rates used in the comparison are the most recent available. The local tax rates used in the analysis are the statewide averages that would be applicable to a biotechnology corporation. To the extent that actual tax rates in specific locations of the states would differ, the resulting tax burdens of the hypothetical corporation in those locations would differ. The methodology and assumptions used in calculating the taxes are described in the appendix.

The hypothetical biotechnology corporation is an established corporation that is approximately 25 years old and is making a profit. The corporation still conducts research and development, but its primary activity is manufacturing. It has 80 employees operating in several states.

This analysis is for illustrative purposes only. It is intended to present information on tax laws in Wisconsin and other states in a simple and easily understood manner. Actual calculations may be more complex and tax burdens may vary with consideration of additional variables or tax laws.

B. TOTAL TAX BURDEN SUMMARY

Table 1 shows the total tax liability ranking of the corporation by location. For this comparison, total tax liability is the sum of sales, property, income and franchise taxes. A ranking of 1 denotes the highest tax liability among the five locations compared.

TABLE 1
TOTAL TAX LIABILITY

State	Tax	Rank
California	\$ 773,912	5
Illinois	876,149	3
Massachusetts	849,094	4
Minnesota	1,699,583	1
Wisconsin 2004*	927,377	2
Wisconsin 2008*	726,551	6

* A credit is available for sales tax paid on fuel and electricity used in manufacturing; those purchases will be exempt beginning in 2006. Income is apportioned with a double-weighted formula; beginning in 2008, income will be apportioned to the state using a single sales factor formula. The 2008 calculations assume both changes are in effect.

As shown in Table 1, tax burdens vary considerably for the corporation in the five states. In 2006, Wisconsin will begin phasing in a formula to apportion income to the state based only on the amount of sales a company makes in Wisconsin compared to sales made everywhere and will exempt sales of fuel and electricity used in manufacturing from the sales and use tax. As a result, the paper includes two Wisconsin comparisons: the first under current law and the second as if single sales factor apportionment were fully phased in and manufacturing fuel and electricity were exempt from sales and use tax.

Table 2 provides a breakdown of total tax liability by tax type. A discussion of each tax follows.

TABLE 2
STATE TAX LIABILITY BY TYPE OF TAX

State	Sales		Property		Income/Franchise	
	Tax	%	Tax	%	Tax	%
California	\$ 110,245	14.2%	\$252,249	32.6%	\$411,418	53.2%
Illinois	140,195	16.0%	556,448	63.5%	179,506	20.5%
Massachusetts	60,877	7.2%	640,353	75.4%	147,864	17.4%
Minnesota	79,140	4.7%	825,923	48.6%	794,520	46.7%
Wisconsin 2004*	116,773	12.6%	505,323	54.5%	305,281	32.9%
Wisconsin 2008*	88,715	12.2%	505,323	69.6%	132,513	18.2%

* A credit is available for sales tax paid on fuel and electricity used in manufacturing; those purchases will be exempt beginning in 2006. Income is apportioned with a double-weighted formula; beginning in 2008, income will be apportioned to the state using a single sales factor formula. The 2008 calculations assume both changes are in effect.

As shown in Table 2, the hypothetical corporation, with considerable assets in a manufacturing plant, property taxes are the most significant of the taxes compared. Property tax liability ranged from 33% to 75% of total tax liability. Income tax liability is significant in most states. Sales tax is minor for the established corporation, accounting for no more than 15% of total taxes in any state.

C. PROPERTY TAX

Table 3 shows the property tax rankings of each state for the hypothetical corporation. Table 4 summarizes property tax exemptions relating to business property and tax rates in each location.

TABLE 3
PROPERTY TAX LIABILITY

State	Tax	Rank
California	\$ 252,249	5
Illinois	556,448	3
Massachusetts	640,353	2
Minnesota	825,923	1
Wisconsin	505,323	4

TABLE 4
PROPERTY TAX PROVISIONS FOR 2004/2003

State	Exemptions	Full Value Tax Rate
California*	Intangibles, inventory	1.12/0.8
Illinois	All personalty	2.67
Massachusetts*	All personalty	3.31/3.08
Minnesota*	All personalty	3.02/3.9
Wisconsin	Manu. M&E, motor, intangible, inventory, computers	2.00

* The first rate applies to the start-up firm; the second rate applies to ongoing firms.

The corporation, by virtue of its manufacturing activity, holds significant value in both manufacturing machinery and equipment and computers, both of which are exempt in Wisconsin. As a result, Wisconsin's property tax ranks low. California also ranks low due to its low tax rate and the effect of Proposition 13 on assessments of long-standing properties. Minnesota's property tax ranks highest in spite of its exemption of personal property. This is due to the high full value tax rate.

D. SALES TAX

The sales tax treatment of purchases varies significantly among states. Exempting purchases of machinery and equipment (M&E) used in manufacturing from the sales tax, or taxing purchases at a lower rate, provides a tax incentive to invest in new equipment. In those states where all equipment purchases are taxed at the general sales tax rate, the cost of investing in new equipment is higher than in those states that provide exemptions or lower sales tax rates.

Tables 5 and 6 show the sales tax rankings and significant provisions that would apply if the hypothetical corporation were located in each state.

TABLE 5
SALES TAX LIABILITY

State	Tax	Rank
California	\$ 110,245	3
Illinois	140,195	1
Massachusetts	60,877	6
Minnesota	79,140	5
Wisconsin 2004*	116,773	2
Wisconsin 2006*	88,715	4

* Beginning in 2006, fuel and electricity used in manufacturing are exempt from Wisconsin sales and use taxes.

TABLE 6
SALES TAX EXEMPTIONS

State	Fuel & Electricity		Machinery & Equipment		Sales Tax Rate
	Mfg.	R&D	Mfg.	R&D	
California	No	No	Yes**	Yes**	7.5%
Illinois	No	No	Yes	No	7.5%*
Massachusetts	Yes	Yes	Yes	Yes	5%
Minnesota	Yes	Yes	Yes	Yes	6.5%
Wisconsin	No***	No	Yes	No	5.5%

* Different rates apply for purchases of fuel and electricity and transportation equipment.

** M&E for certain start-up companies in business for less than three years are exempt.

*** An income tax credit is available for sales tax paid on fuel and electricity used in manufacturing. Fuel and electricity used in manufacturing tangible personal property are exempt from sales tax beginning in 2006.

Massachusetts imposes the lowest sales tax liability due to its low sales and use tax rate (a 5% state rate and no local tax on these items) and exemptions for purchases of machinery and equipment, and fuel and electricity used in both manufacturing and research and development. Minnesota exempts the same items as Massachusetts but imposes a higher tax rate. Minnesota has a 6.5% state rate and the table is based on that rate. However, some Minnesota cities impose a local tax at a rate of 0.5% or 1%.

Wisconsin is shown for 2004 and 2006 because a new law exempts manufacturers' purchases of fuel and electricity as of January 1, 2006. In addition, the current law corporate income tax credit for manufacturers' purchases of fuel and electricity is repealed.

Illinois has the highest sales tax burden. Of the purchases compared, only manufacturing machinery and equipment are exempt from tax in Illinois.

E. INCOME TAX AND FRANCHISE TAX

The Table 7 shows the combined income and franchise tax liabilities and rankings for the hypothetical corporation. As used in this comparison, the term “income tax” includes taxes measured by net income and term “franchise tax” refers to taxes based on capital stock, net worth or other asset-related measures, as well as annual corporate filing fees that may be paid to the Secretary of State or similar offices in various states. This section combines the income and franchise tax liabilities because some states impose taxes that are the greater of an income or franchise tax, making a separate discussion less meaningful. Key provisions of the income tax appear in Table 8.

TABLE 7
INCOME AND FRANCHISE TAX LIABILITY

State	Tax	Rank
California	\$ 411,418	2
Illinois	179,506	4
Massachusetts	147,864	5
Minnesota	794,520	1
Wisconsin 2004*	305,281	3
Wisconsin 2008*	132,513	6

* A credit is available for sales tax paid on fuel and electricity used in manufacturing; those purchases will be exempt beginning in 2006. Income is apportioned with a double-weighted formula; beginning in 2008, income will be apportioned to the state using a single sales factor formula. The 2008 calculations assume both changes are in effect.

TABLE 8
INCOME TAX PROVISIONS

State	Apportionment Formula	Effective Top Tax Rate*	Carryover Period for NOLs		Combined Reporting
			Back	Forward	
California	Double-Weight	8.84%	0 Years	10 Years	Yes
Illinois	Sales	7.30%	2 Years	12 Years	Yes
Massachusetts	Double-Weight	9.50%	0 Years	5 Years	No
Minnesota	75% Sales	9.80%	0 Years	15 Years	Yes
Wisconsin 2004	Double-Weight	8.137%	0 Years	15 Years	No
Wisconsin 2008	Sales	8.137%	0 Years	15 Years	No

* Includes other corporate income tax surcharges or special taxes.

"Double Weight" indicates that the sales factor is double weighted in the apportionment formula. "Sales" indicates a formula based only on the sales factor.

The highest income tax burdens for the established corporation occur if the company is located in Minnesota and California. Minnesota's apportionment formula results in 45% of its income being apportioned to the state and it has the highest effective tax rate of the states compared. California and Wisconsin under current law both apportion 60% of income to the home state, however California has a higher tax rate so that the corporation there pays more tax. The corporations in Illinois and Wisconsin (2008) would apportion only 30% of income to the home state, as would manufacturing corporations in Massachusetts.

The lowest tax burden occurs in Wisconsin under single sales factor apportionment (2008). In Wisconsin, income tax liability drops from \$308,616 under the double weighted apportionment formula (current law) to \$132,704 under single sales factor apportionment formula (2008). Illinois, also with single sales factor apportionment, has the next lowest income tax burden.

Four of the five states compared have some version of research credits. The former research credit in Illinois is not effective for tax years after 2003. The other states all define expenses eligible for the basic research credit similarly (using a base year formula of 1984 to 1988 data). However, the percent of those expenditures allowed as credit is very different: California allows 15%; Massachusetts 10%; Wisconsin 5%; and Minnesota 5% of the first \$2 million of expenses and 2.5% of remaining eligible expenses. Wisconsin also allows a credit for expenses for research facilities.

Massachusetts, California and Minnesota all impose requirements that tax liability not be reduced below a certain amount by credits available to the corporations. In Massachusetts, credits cannot reduce tax liability below 50% of pre-credit tax amounts. In California, the credit cannot reduce tax liability below \$800, and in Minnesota an additional fee calculation (up to \$5,000) determines the minimum tax.

Each state compared has some form of targeted enterprise or development zone program that could provide certain tax incentives to a business locating in a zone. These incentives are typically negotiated on a case-by-case basis by the state departments of development or commerce with businesses. As such, they are not included in this comparison.

Other than annual filing fees, only Massachusetts and Illinois have state-levied franchise taxes. Minnesota has no annual filing fees for domestic corporations. The total taxes and rankings, and franchise tax provisions are shown in the tables below. Franchise tax provisions and filing fees are summarized in Table 9.

TABLE 9
FRANCHISE TAX PROVISIONS

State	Annual Filing Fees	State Franchise Tax Provision		
		Tax	Tax Base	Rate per \$1,000
California	\$ 10	No	Capital Stock Property Value	\$1.00 \$2.60
Illinois	75	Yes		
Massachusetts	85	Yes		
Minnesota	-	No		
Wisconsin 2004	25	No		

APPENDIX

A. METHODOLOGY

This comparison calculates the state and local tax burden arising from the major taxes that a biotechnology corporation would pay in each state, including the corporate income, franchise, property and sales taxes. For the comparisons to be meaningful, it is important to define the components of each of the major taxes.

As used in this comparison, the term "income tax" includes corporate income taxes and franchise taxes that are based on corporate net income. The term "franchise tax" includes annual filing fees and taxes that are based on capital stock, net worth or any measure other than corporate net income. While it is necessary to make these distinctions for comparison purposes across the states, use of the terminology in this way should not be interpreted to contradict the important legal distinction between the corporate income and franchise taxes.

This approach, within the limits of the assumptions applied, quantifies only the most significant tax differentials among the states. Since the comparison relies on hypothetical corporations, variations in the relationship of real property, inventories or other assets to income could have a substantial impact on the tax burdens in different states. In addition, other factors such as unemployment and worker's compensation costs, state and local taxes on individuals, transportation costs, wage rates for labor, and short-term tax and other locational incentives aimed at attracting industry all vary among the states and have an impact on the costs of doing business. These factors are beyond the scope of this study.

It is important to note that state and local taxes are only one of the many costs of doing business. Other significant factors affecting location decisions include the accessibility of markets, raw materials and suppliers; availability of skilled a labor force and labor costs; the availability and quality of transportation and other public services; regulatory processes; and the quality of life. It is difficult to rank taxes among the many factors due to the unique nature of each location decision. Each corporation will have its own ranking of the different factors and it is difficult to predict how often taxes will rank as an important cost of doing business.

B. ASSUMPTIONS

States and cities often offer special tax incentives to individual companies as a way to encourage companies to locate in particular areas. These incentives can apply to any tax and can significantly reduce or eliminate tax liability for a company. Because of the company-specific nature of these incentives, this comparison does not account for these special tax incentives. For purposes of this comparison, tax incentives are limited to tax provisions available to all businesses operating in a state.

1. Property Tax

General Assumptions. Property taxes are calculated for 2003/2004 (i.e., levied in 2003, payable in 2004). Table A.1 shows the property owned by the hypothetical firm located in the states under analysis. It is assumed that 90% of the property owned by the firm is located in the state being analyzed, and 10% located out of state.

TABLE A.1
FULL VALUE OF PROPERTY
LOCATED IN STATES UNDER ANALYSIS 2004/2003

REAL ESTATE:	
Land	\$ 2,360,241
Buildings	18,454,507
PERSONAL PROPERTY:*	
Mfg. Machinery & Equipment	3,678,061
Laboratory Equipment	1,616,626
Other Non-Mfg. Machinery & Equipment	870,491
Computer Equipment	3,695,003
Copiers, Faxes	553,027
Furniture & Fixtures	1,398,607
Inventory	11,319,976
Transportation	69,413
Intangibles	<u>1,318,193</u>
TOTAL	\$ 45,334,144

*Assumes that 90% of real and tangible property and 100% of intangible property is in the home state.

The full value of property is generally assumed to be the net book value of the land and personal property accounts. The book value of land is increased by 50% to reflect the impact of increases in land value on the current market value, which is usually the basis for assessment of land. However, each location may measure full value differently due to differing assessment practices and different depreciation factors used in calculating the value of personal property. Sales ratio data that compares assessments to actual sale prices and state-specific depreciation factors are incorporated to calculate the full value of property as measured in each location. Assessment ratios are then applied to calculate assessed values. The sales ratio, assessment ratio and tax rate used for each location are described below.

California. The 2002/2003 property tax rate (including all taxing jurisdictions) was \$1.082 per \$100 of assessed value. Under Proposition 13, real property is generally assessed at 100% of its 1975/76 full value subject to an increase in assessed value of not more than 1% per year for each year since 1975/76. However, newly constructed property or property that has changed ownership is assessed at its current full value. The analysis assumes that real property in California is assessed at 74.87% of full value, based on sales ratio studies conducted by the California Board of Equalization. Real property for start-up firms is assessed at 100% of full value. Personal property is assessed at 100% of full value, which is determined by California-established useful lives and depreciation factors. Intangibles and inventories are exempt. Motor vehicles are subject to a license tax in lieu of property taxes at a rate of 2% of market value.

Illinois. The 2001/2002, the most recent information available, statewide average industrial property tax rate (including all taxing jurisdictions) was \$8.02 per \$100 of assessed value. The effective tax rate was 2.67% of full market value. In Illinois, all property is assessed at 33 1/3% of its full value. Cook County has different assessment ratios for newly established firms, but they were not considered. It is assumed that a

biotech firm would be classified as industrial property. Intangibles and all personal property are exempt in Illinois.

Massachusetts. The 2003/2004 property tax rate for commercial property (including all taxing jurisdictions) was \$33.08 per \$1,000 of assessed value. Property is assessed at 100% of market value. All personal property is exempt in Massachusetts.

Minnesota. The 2003/2004 effective tax rate was 3.02% of full market value. Industrial and commercial property is assessed at 1.5% of the first \$150,000 of full value and 2% of full value over \$150,000. The tax rate on assessed property was \$137.107 per \$100 of assessed value. In addition, there is a Referendum Market Value Tax of 0.15054% of full market value. Since 2001, the state levies property tax on certain properties; the 2003 levy was \$54.11 of \$100 of assessed property and it applied to commercial and industrial property. Commercial and industrial property is also subject to the Fiscal Disparity Law, a separate tax on commercial and industrial property levied in certain counties. All personal property is exempt in Minnesota.

Wisconsin. The 2003/2004 property tax rate (including all taxing jurisdictions) was \$20.01 per \$1,000 of full value. All classes of property are subject to the same rate. Manufacturing machinery and equipment, computers, inventories, intangible property and motor vehicles are exempt from property tax in Wisconsin.

2. Sales Tax

General Assumptions. As used in this study, the term "sales tax" refers to one-time taxes imposed on the purchase price of items. The sales tax rate used in the comparison is the state sales tax rate plus a local tax rate. The comparison in Table 5 calculates the amount of sales tax that would be paid by the hypothetical corporations on their purchases of personal property (shown in the following table). This comparison follows the same assumptions as used in the property tax analysis, that 90% of the property purchased by the multistate corporation will be located and used in the home state and therefore subject to sales (or use) tax in that state.

It is assumed that the hypothetical corporation purchases new and replacement personal property on a regular basis. The purchases of new personal property are considered to reflect the normal replacement of a corporation's existing property plus additional new property to increase output or otherwise improve productivity.

Items considered manufacturing M&E are only those items used directly in the manufacturing process. However, some states also exempt equipment used in other stages of the manufacturing process and equipment used in research and development. The comparison assumes that 50% of the equipment included in "other non-manufacturing equipment" category is not used at all in the manufacturing process. This equipment would include building maintenance and janitorial equipment and non-computer office equipment. The study assumes that 25% of the category is packaging-related equipment and the remaining 25% includes fork lifts and belts for transporting goods and other materials-handling equipment.

TABLE A.2
PURCHASES POTENTIALLY
SUBJECT TO SALES AND USE TAX

Type of Purchase	Amount
Mfg. Machinery & Equipment	\$ 479,986
Research Equipment	206,491
Other Non-Mfg. Equipment	141,397
Computer Equipments	286,808
Furniture and Fixtures	835,427
Transportation Equipment	24,611
Fuel and Electricity for Mfg.	510,146
Fuel and Electricity for Research	<u>153,623</u>
Total Purchases	\$ 2,638,489

* Analysis assumes that 90% of purchases of the established company are in the state.

Motor vehicle taxes imposed on the purchase price are included in the sales tax calculations, even though the tax may not be referred to as a general sales tax by the state imposing the tax.

Also, computations are made for the amount of sales tax paid on purchases of fuel and electricity used in the manufacturing process. Energy use is assumed to consist solely of electricity and natural gas. It is assumed that 60% of the amount spent is assumed to be for natural gas and 40% is for electricity. Some states provide special treatment for other fuels, such as coal, but information is not available to break down fuel use by type of fuel.

For purposes of this comparison, items included in the computer equipment category are assumed to be office-related equipment, such as mainframe and personal computers, printers, servers, and software. Computer equipment that would be part of manufacturing or research and development equipment, or used to perform those functions, is included in the M&E category.

California. The combined state and local rate is 7.5% (6% state rate and 1.5% local rate). All electricity and most fuels used in manufacturing and research and development are exempt from tax. Purchases of machinery and equipment used in manufacturing and research and development are generally exempt from the 5% state tax.

Illinois. The state rate is 6.25% and the city rate is 1.25%, for a combined state and local rate of 7.5%. The city rate for motor vehicles is 1%, making the combined state and local rate 7.25% for these purchases. Machinery and equipment purchases are exempt from tax. Consumption of electricity and natural gas is subject to an excise tax measured by kilowatt-hours or therms used, respectively. Self-assessing purchasers may, instead, pay 5.1% of electricity purchases and 5% of natural gas purchases. This comparison applies the self-assessing rates to purchase prices.

Massachusetts. The state rate is 5%. No local rate applies to the items in this study. Purchases of machinery and equipment used in manufacturing and in research and development are exempt from tax. Fuel and electricity used directly in manufacturing, research and development, and to heat an industrial facility are also exempt from tax.

Minnesota. The state rate is 6.5%. Since few local governments impose a local tax, none is assumed. Purchases of fuel and electricity used in manufacturing and in research and development are exempt from tax. Purchases of machinery and equipment for manufacturing and for research and development are taxable, but a full refund is available. As such, they are considered exempt from tax for purposes of this study.

Wisconsin. The state sales tax rate is 5% and the local rate is 0.5%, for a combined state and local rate of 5.5%. Purchases of manufacturing machinery and equipment are exempt from tax. Purchases of fuel and electricity used in manufacturing are taxable, but an income tax credit is available for the amount of sales tax paid. However, beginning in 2006, purchases of fuel and electricity used in manufacturing are exempt. Purchases of equipment, fuel and electricity used for research and development are taxable.

3. Corporate Income and Franchise Tax

General Assumptions. The income tax calculations are based on a taxable year beginning on January 1, 2004, based on \$8,961,390 of income before deductions for taxes.

The comparison assumes that the firm is a multistate corporation that apportions some of its income to other states and that all of the income of this corporation is subject to apportionment. The apportionment ratios used in this comparison are as follows:

- Total real and tangible property in-state / Total real and tangible property everywhere = 90%
- Total payroll costs in-state / Total payroll costs everywhere = 90%
- Sales destined for in-state purchasers / Sales destined for purchasers everywhere = 30%

The 90% ratios for property and payroll and the 30% ratio for sales reflect the assumption that the corporation sells its products on a regional or national basis. The remaining 10% of property and payroll and 70% of sales are assumed to be allocable to other states. The allocation of some property, payroll and sales to other states is not taken into consideration in computing the income tax burden of the corporation; the allocation would affect the total state tax burden of the corporation to the extent that they were subject to tax in other states.

Using these assumptions, income apportioned on the basis of the simple average of the 3 factors—property, payroll and sales—results in an apportionment percentage of 70%. This means that 70% of the income of the profitable corporation is subject to tax in states that apportion using this method. Many states, require corporations to apportion most income with a formula that double-weights the sales factor. Double-weighting the sales factor reduces the apportionment percentage to 60%. Income apportioned based only on the sales factor would further reduce the apportionment percentage to 30%.

A deduction is allowed for the amount of sales tax paid in the current year on purchases of new personal property. Since states generally follow federal law, which requires sales taxes to be capitalized into the cost of the asset, the current year sales tax liability is used as a simplified proxy for the depreciation and other deductions that the hypothetical corporations would claim based on the cumulative effect of all capitalized sales tax.

Purchases of fuel and electricity used in manufacturing are deductible as part of the cost of goods sold. In the few states where such purchases are subject to sales tax, the amount of net income subject to tax is reduced by the amount of sales tax on fuel and electricity. The cost of the fuel and electricity, exclusive of sales tax, is assumed to be included in the cost of goods sold figure for statements.

This comparison includes only tax credits available to all biotechnology corporations that have made the investments or expenditures required. Special state tax credits and other incentives associated with targeted areas, such as enterprise or redevelopment zone programs, are not included in the study. Such special tax credits are not included because of the difficulty in developing the detailed assumptions necessary to compute the tax credits, and because the credits often require prior approval and may not be generally available or applicable to all corporations. Similarly, investment credits that require creation of additional jobs are not included.

Tax credits that are applicable to all biotechnology corporations, such as credits for property or sales taxes paid or for certain research and development expenses, are included in the study. Assumptions have been developed for each corporation for use in computing the amount of credits available in each state for research and development expenditures (Table A.4). These assumptions include amounts spent for research wages, supplies, equipment, computer rental, and contract research expenses.

TABLE A.3
EXPENDITURES FOR IN-STATE RESEARCH AND DEVELOPMENT TAX CREDIT

Research Expenditures	Amount
Research Wage Expenses	\$ 3,888,651
Research Supplies Expenses	1,148,783
Research Computer Rental Expenses	35,618
Applicable Contract Research Expenses	754,012
Qualified Research Facility Expenditures	<u>317,861</u>
Total Expenditures	\$ 6,144,924

Some states, such as California and Minnesota, impose a corporate alternative minimum tax patterned after the federal alternative minimum tax. It is assumed that none of the corporations in the study are subject to the alternative minimum tax.

The term "franchise tax" as used in this study refers to franchise taxes based on capital stock, net worth or other asset-related measures as well as annual corporate filing fees that may be paid to the Secretary of State or similar offices in the various states. Franchise taxes measured by corporate net income are included under the income tax. The hypothetical corporations are assumed to be domestic corporations for franchise tax and filing fee purposes. All intangible property, such as patents and copyrights, is assumed to be located in the state.

California. The income tax rate is a flat 8.84%, with a minimum tax of \$800. Income is apportioned using a double-weighted sales formula, making the apportionment percentage for this study 60%.

An investment credit is available for 6% of the cost of qualified manufacturing and research and development tangible personal property used in any stage of the manufacturing or research and development process. The credit cannot be applied to expenditures for which a sales tax exemption was claimed.

A credit is available for increases in expenditures for research and development, including wages, supplies, computer rental and contract research expenses. The credit is 15% of the excess of qualified research expenses over the base period research expenses. For existing companies, the excess is determined using gross receipts and expense information from 1984 to 1988 and the four most recent years. A credit is also available for 24% of basic research payments to a qualified university or research organization.

Credits cannot reduce tax liability below \$800 annually.

California has an alternative minimum tax. This study assumes that none of the corporations are subject to the alternative minimum tax.

Annual reports are filed with the Secretary of State and are subject to a \$20 filing fee.

Illinois. Two income taxes are imposed on the same tax base: the regular income tax rate is a flat 4.8% and the personal property replacement tax is 2.5%. The total tax is equal to the sum of the two taxes. Income is apportioned using a single sales factor apportionment formula.

A standard exemption of \$1,000 is allowed under the regular income tax to the extent of the apportionment percentage. A credit is allowed against the regular income tax in an amount equal to an apportioned share of the replacement tax multiplied by the regular income tax rate of 4.8%.

A replacement tax investment credit is available for 0.5% of the basis of qualified property. Qualified property is tangible property, including buildings, that is depreciable for federal income tax purposes if it is used for manufacturing, mining coal or fluorite or retailing. The research credit was repealed for tax years ending prior to December 31, 2004. A high impact business tax credit is available for businesses that invest at least \$12 million in qualified property and create 500 new jobs, or that invest \$30 million in qualified property and retain 1,500 jobs. This credit was not included in the comparison.

An annual report is filed with the Secretary of State along with a \$75 filing fee.

Massachusetts. The income tax rate is a flat 9.5%. Income is generally apportioned based on a formula that double-weights the sales factor. However, manufacturing corporations that qualify may apportion income using a single sales factor apportionment method. This analysis assumes that the profitable corporation would use the single sales factor apportionment formula.

An investment credit is available against either income or franchise taxes for 3% of the cost of qualifying property. Qualifying property is depreciable property with a useful life of four or more years. Motor vehicles do not qualify for the credit. The credit cannot reduce tax liability below 50%.

A credit is available for 10% of increases in research expenses, including wages, supplies, computer rental and qualified contract research expenses. A 15% credit is

available for increases in payments to a qualifying university or scientific research organization. Increases are determined using gross receipts and expense information from 1984 to 1988 and the four most recent years.

The franchise tax is measured by the value of the corporation's capital stock less the value of property subject to local taxation. The rate of tax is \$2.60 per \$1,000 of value. An annual filing fee of \$85 is paid to the Secretary of State.

Minnesota. The income tax rate is a flat 9.8%. Income is apportioned based on a three-factor formula that weights the sales factor at 75% and each of the property and payroll factors at 12.5%, making the apportionment percentage 45% for this study. (The 75%/12.5%/12.5% factors take effect for tax years beginning 1/1/01).

An additional fee is imposed on corporations based on the weighted sum of property, payroll and sales. The fee ranges from \$100 for corporations with a weighted sum of at least \$500,000 but less than \$1 million, to \$5,000 for corporations with a weighted sum in excess of \$20 million.

A credit is available for increases in research expenses, including wages, supplies, computer rental, qualified contract research expenses and basic research payments to qualified research organizations. Increases are determined using gross receipts and expense information from 1984 to 1988 and the four most recent years. The credit is also available for contributions to qualified nonprofit organizations that are operated to make grants to small, technologically innovative enterprises in Minnesota during their development stages. The credit is 5% of the first \$2 million of qualified expenses and 2.5% of expenses over \$2 million.

There is no franchise tax and no annual filing fee for domestic corporations.

Wisconsin. The corporate income tax rate is a flat 7.9%. Income is apportioned using a three-factor formula that double-weights the sales factor, making the apportionment percentage for this comparison 60%. A credit is available for the amount of sales tax paid on fuel and electricity used in manufacturing. A recycling surcharge equal to 3% of gross tax liability is imposed on corporations with more than \$4 million in gross receipts. The minimum fee is \$25; the maximum fee is \$9,800.

In 2006, Wisconsin will begin phasing in single sales factor apportionment. The sales factor will be weighted at 60% in 2006, 80% in 2007 and 100% in 2008. Fuel and electricity used in manufacturing will be exempted from the sales tax in 2006 and the credit for sales tax will be repealed. In addition, although not represented in this comparison, manufacturers that meet certain conditions may continue to use manufacturers sales tax credit carried forward from prior years to offset income in the future. Manufacturers with up to \$25,000 of unused credit may take up to 50% in each of the following two years after the credit is repealed and the sales tax exemption takes effect. Manufacturers with more than \$25,000 of unused credit will be allowed to amortize the unused credit over 15 years, beginning in 2008, if they meet certain investment tests such as retention of jobs or investment in depreciable tangible personal property. Because of these significant changes, a separate comparison is done for Wisconsin that assumes single sales factor apportionment is fully phased in and the credit for fuel and electricity is replaced with a sales tax exemption.

There is no franchise tax. A \$25 annual filing fee is paid to the Secretary of State for annual returns filed electronically. The fee is \$40 for filing paper returns.